REMARKS

The following Remarks are made in response to the Non-Final Office Action mailed October 7, 2004. In that Office Action, the Examiner rejected claims 18-20 under 35 U.S.C. §102(b) as being anticipated by Lu et al., U.S. Patent No. 6,317,317 ("Lu") and claims 1-17 under 35 U.S.C. §103(a) as being unpatentable over Lu in view of Crockett, U.S. Patent No. 6,061,231 ("Crockett").

With this Amendment, claims 1 and 18 have been amended. Therefore, claims 1-20 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 102

Claim 18 was rejected under 35 U.S.C. §102(b) as being anticipated by Lu. Amended independent claim 18 relates to a method of assembling a hard drive to a housing of a data storage cartridge. The method includes providing a housing of a data storage cartridge configured for use in an automated library system and including an access window, placing the hard drive having at least one electrical connection point within the housing, and aligning the at least one connection point relative to the access window. The at least one connection point is aligned relative to the access window in at least one of an X-direction extending substantially parallel to a width of the access window and a Y-direction extending substantially parallel to a length of the access window. Lu fails to disclose such limitations.

Lu relates to an insertion cartridge 1 for a hard disk 20 of a portable computer. The insertion cartridge includes a lower cover 30 and an upper cover 10, which fit together to enclose the hard disk 20 therebetween. The insertion cartridge 1 is configured to ease insertion of the hard disk 20 into a portable computer. Since the insertion cartridge 1 disclosed in Lu is configured solely for use in a portable computer, the insertion cartridge is not sized or otherwise configured for use in an automated library system as recited in amended independent claim 18. In fact, Lu never describes or alludes to an automated library system. More particularly, the insertion cartridge is not sized or shaped to be handled by the components of an automated

library system. Therefore, Lu fails to disclose the limitations of amended independent claim 18. As a result, amended independent claim 18 is believed to be allowable over the cited reference.

Each of independent claims 19 and 20 were similarly rejected under 35 U.S.C. § 102(b) as being anticipated by Lu. Each of claims 19 and 20 depend from and incorporate the limitations of amended independent claim 18. As described above, Lu fails to teach or otherwise suggest the limitations of amended independent claim 18. As a result, dependent claims 19 and 20 are similarly believed to be allowable over Lu.

Claim Rejections under 35 U.S.C. § 103

Claims 1-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lu in view of Crockett. Amended independent claim 1 relates to a data storage cartridge including a housing and a hard drive. The housing defines an interior cavity, an access window, and at least one alignment feature positioned within the interior cavity. The hard drive is maintained within the interior cavity and has at least one electrical connection point. The at least one alignment feature is configured to interact with the hard drive to at least partially align the at least one electrical connection point relative to the access window. The cited references fail to teach or otherwise suggest these limitations.

For instance, as admitted by the Examiner, Lu does not teach the use of alignment features (Office Action, page 4). Moreover, as illustrated in Figures 2 and 4 of Lu, the hard disk 20 fits within insertion cartridge 1 (including upper cover 10 and lower cover 30) in a relatively tight manner. Since the insertion cartridge 1 is sized just slightly larger than the hard disk 20, hard disk 20 is aligned with the window of insertion cartridge 1 merely by interacting with the side walls of the cartridge 1, in particular of lower cover 30. The ability of the hard disk 20 to be automatically aligned with the cartridge window merely by interacting with the side walls of lower cover 30 renders any alignment features other than the existing side walls unnecessary. Moreover, since the side walls of lower cover 30 define any internal cavity of the insertion cartridge 1, the side walls themselves cannot be considered to be an "alignment feature positioned within the interior cavity" of the housing as recited by independent claim 1.

In addition, as described above, Lu relates to an insertion cartridge for a hard disk of a portable computer. In order to facilitate portability of a computer, the available space within portable computers is limited. Therefore, it would be undesirable to increase the size of the insertion cartridge 1 as it would increase the overall size of the portable computer. As described above, the hard disk 20 is described as fitting tightly within the insertion cartridge 1. If alignment features were unnecessarily added to the internal cavity of the insertion cartridge, additional and undesirable bulk would also be added to the insertion cartridge 1. Consequently, not only would it be unnecessary but it would also be undesirable to add any features, such as alignment features, that would add to the overall bulk of the portable computer without providing additional advantages. Moreover, although the Examiner states that incorporation of the alignment features of Crockett into the insertion cartridge of Lu would reduce risk of damage to the drive (Office Action, paragraph 4), it is respectfully asserted that no need for damage risk reduction or other teachings suggesting the combination of the cited references is explicitly or inherently provided within the references.

Furthermore, the insertion cartridge 1 of Lu is configured to decrease the time required to assemble a portable computer (column 1, lines 21-28). As such, Lu teaches away from the addition of alignment features requiring additional care and mating during assembly (similar to insertion of screws through threaded cavities as disclosed in the cited passage of Lu). Therefore, in view of at least the above reasons, Lu fails to provide a suggestion to combine its teachings with any alignment features or mechanisms, such as the support members 18 or 20 of Crockett.

Therefore, since there is no suggestion to add additional alignment features to the cartridge of Lu, there is no suggestion to combine the cartridge of Lu with the alignment teachings of Crockett. As a result, amended independent claim 1 is believed to be allowable over the cited references.

Notably, although not explicitly recited in the current application as an "internal cavity," such a cavity is clearly disclosed in view of Figure 1 and various portions of the current application reciting the hard drive 14 being placed within the housing 12 or a housing section 18 and 20, i.e., within an internal cavity of the housing 12 (page 4, lines 23-27; page 10, lines 12-13;

and page 13, lines 8-9; etc.). Moreover, in view of Figure 1 and since the example alignment features 44, 46, 48, 50, and 52 described in the specification extend from the interior surface 32 first housing section 18 (page 6, lines 2-3 and 15-16; page 7, lines 1-2 and 20-21; etc.) and interact with the hard drive 14 (page 10, lines 26-27; etc.), which as described above is placed within the internal cavity of housing 12, the example alignment features 44, 46, 48, and 50 disclosed in the present application support a limitation that an alignment feature is positioned within the interior cavity as recited in amended independent claim 1. Therefore, the new language of amended independent claim 1 has descriptive basis in the Applicant's original disclosure and does not constitute new matter.

Each of dependent claims 2-17 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu in view of Crockett. Each of claims 2-17 depend from and incorporate the limitations of amended independent claim 1. As described above, the cited references fail to teach or otherwise suggest the limitations of amended independent claim 1. As a result, dependent claims 2-17 are similarly believed to be allowable over Lu in view of Crockett.

Moreover, dependent claims 8-10 are believed to recite additionally patentable subject matter. In particular, dependent claims 8-10 each recite the at least one alignment feature including an "alignment rib," which is described in the specification as being a relatively thin and tab-like structure (page 6, lines 15-26). This use of the term "rib" is consistent with its ordinary meaning "a part or piece similar to a rib [a long bone in a vertebrate] and serving to shape or support" (*The American Heritage Dictionary of the English Language*, 1992, page 1549).

Such use of the term "rib" does not include round or relatively thick structures. Therefore, the term "alignment rib" does not incorporate the rounded and thick support members 18 and 20 or 52 disclosed in Crockett. As a result, even if there were a suggestion to combine Lu and Crockett, which as described above Applicant avers there is not, neither reference discloses an "alignment rib" as recited in dependent claims 8-10. Under similar reasoning, neither Lu and Crockett teach or otherwise suggest the hard drive having an alignment slot configured to receive the alignment rib or an alignment rib "positioned adjacent the access window" as recited in

dependent claims 9 and 10, respectively. Consequently, the additional limitations of dependent claims 8-10 provide additional reasons to believe that claims 8-10 are allowable over the cited references.

Dependent claim 16 also recites additional subject matter supporting patentability. More specifically, dependent claim 16 recites that the at least one alignment feature includes an attachment pillar, at least one alignment post, and an alignment rib, each of which are configured to align the at least one electrical connection point relative to the access window in a particular direction. As described with respect to dependent claims 8-10, neither of the cited references recites an alignment rib. Moreover, Applicant's use of different terms to describe each of the alignment features should be given due weight. As such, since the alignment features are each described with different terminology, each feature should have different corresponding structure as opposed to a claim reciting a plurality of one type of alignment feature. With this in mind, it is noted that the support features 18 and 20 or 52 of Crockett all have the same structure for any one given display assembly 10 (see Figures 1 and 2). Consequently, Crockett fails to teach a housing of a data storage cartridge including multiple types of alignment features, such as the attachment pillar, the alignment post, and the alignment rib recited in dependent claim 16, in a single display assembly 10. Therefore, dependent claim 16 recites additionally patentable subject matter further supporting Applicant's belief that dependent claim 16 is allowable over the cited references.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1-20 are all in a condition for allowance and requests reconsideration of the application and allowance of all pending claims.

Amendment and Response
Applicant: Leo W. Spychalla
Serial No.: 10/725,259
Filed: December 1, 2003
Docket No.: 10413US01
Title: DATA STORAGE CARTRIDGE WITH STATIC HARD DRIVE AND ALIGNMENT FEATURE

The Examiner is invited to contact Applicant's representative at the below-listed telephone number if there are any questions regarding this Response.

Respectfully submitted,

Date: 4/19/5
EDL:JMS:mas

Eric D. Levinson
Reg. No. 35,814

Imation Legal Affairs
P.O. Box 64898
St. Paul, MN 55164-0898
Telephone: (651) 704-3604
Facsimile: (651) 704-5951